

# HUMAN-BIONICS INTERFACE FRONTIERS



## Creating bionic solutions for mankind

Human-Bionics Interface Frontiers is a new professional and industry group bridging the gap between people, bionic interfaces and science for the benefit of millions of patients worldwide. A unique cluster of specialists and organisations are focussed specifically on previously untreatable medical conditions.



*Bionic devices can treat disease conditions for which pharmacological and medical interventions have been ineffective.*

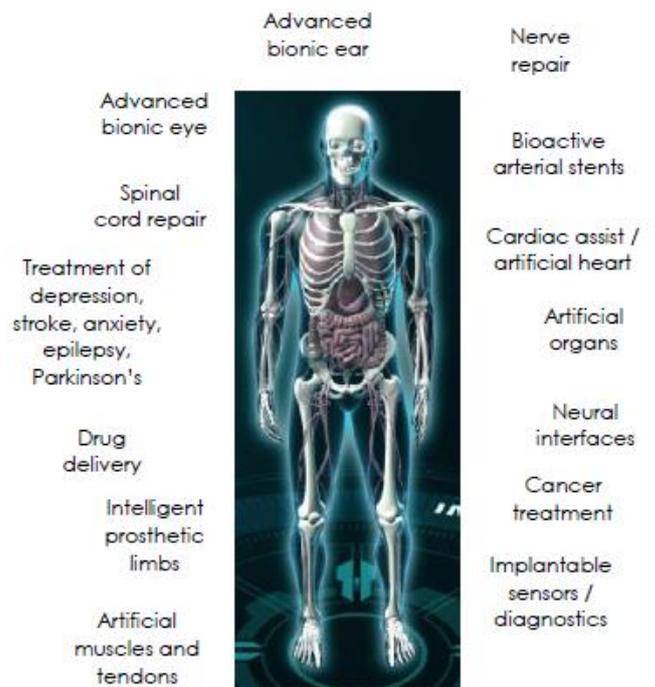
The Human-Bionics industry provides electronic and biomechanical solutions to restore function and alleviate symptoms, addressing illness, disease and disability.

This industry is developing rapidly, with many frontiers involving the design and construction of multiple complex Human-Bionic interfaces.

The bionic ear has already proven success in reversing the impact of significant hearing loss. The bionic eye is now being developed to restore vision to people with retinitis pigmentosa and age-related macular degeneration.

## Applications for Human Bionics

This is an industry creating complex interfaces between individual humans and bionic devices, and "interfaces" between a diversity of enterprises and organisations, operating in the private and public sectors. Small to medium sized enterprises, multinationals, medical practitioners, clinics, hospitals, universities, research institutes, training bodies and government departments are working in the Human Bionics space. Not-for-profit enterprises are working alongside commercial enterprises.



Within this 'ecosystem' of interfacing organisations there are even more interactions as the convergence of sciences, technologies, disciplines and professions drive the development of the industry. Rapid industry growth will be accompanied by similar growth in the number and complexity of interactions. A key challenge for the Human-Bionics industry is to harness and manage these multiplicity of interfaces.



Frontiers are rapidly advancing on many fronts, and groups of Australian scientists are discussing building a Bionic Brain.

### Human-Bionics Interface Frontiers

Having worked with the bionic ear since 1992, Associate Professor Dimity Dornan AO (Founder and Executive Director of Hear and Say centres for deaf children) has been working on the development of Human-Bionic Interface Frontiers, a giant living laboratory enabling currently unconnected people, working in the industry, to collaborate and share knowledge.

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The "Frontiers" is a not-for-profit community facilitating collaboration which will enable:

- + Sharing of information, knowledge, equipment and facilities
- + Enterprises to connect and collaborate
- + Business and industry innovation
- + 'Store house' for Human Bionics industry knowledge and training
- + Facilitation of access to government funding programs
- + A unified voice for advocacy of industry client and industry issues

Human-Bionics Interface Frontiers anticipates a future in which advancements in medical bionic technologies and their uptake by industry will result in new clinical treatments for a wide range of human diseases and otherwise intractable conditions.



## Your invitation

I invite you to join with us in developing partnerships for exploring the exciting new Frontiers of the Human-Bionics Interface.

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